Exhibit A

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Bescheinigung | Certificate | Attestation

Die angehefteten Unterlagen stimmen mit der ursprünglich eingereichten Fassung der auf dem nächsten Blatt bezeichneten europäischen Patentanmeldung überein.

The attached documents are exact copies of the European patent application described on the following page, as originally filed.

Les documents fixés à cette attestation sont conformes à la version initialement déposée de la demande de brevet européen spécifiée à la page suivante.

Patentanmeldung Nr. | Patent application No. | Demande de brevet n°

04001222.1

Der Präsident des Europäischen Patentamts;
Im Auftrag

For the President of the European Patent Office

Le Président de l'Office européen des brevets
p.o.

R C van Dijk

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Bezeichnung der Erfindung/Title of the invention/Titre de l'invention:
(Falls die Bezeichnung der Erfindung nicht angegeben ist, siehe Beschreibung.
If no title is shown please refer to the description.
Si aucun titre n'est indiqué se referer à la description.)

Beam optical component having a charged particle lens

In Anspruch genommene Priorität(en) / Priority(ies) claimed /Priorité(s) revendiquée(s)
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BEAM OPTICAL COMPONENT HAVING A CHARGED PARTICLE LENS

FIELD OF THE INVENTION

The invention relates to a beam optical component having a charged particle lens for focussing a charged particle beam. The invention also relates to a charged particle beam device including said beam optical component and a method for aligning said beam optical component.

BACKGROUND OF THE INVENTION

Improvements of charged particle beam devices, like electron microscopes, electron or ion beam inspection or pattern generating tools, e.g. focused ion beam devices (FIB), depend on further improvements of their beam optical components. Beam optical components include, for example, electrostatic or magnetic charged particle lenses, deflectors, beam apertures, charged particle beam sources and the like.

Charged particle lenses require a high degree of mechanical precision in order to obtain a focus spot of the smallest possible size, which is a prerequisite for obtaining the highest possible spatial resolution when inspecting or structuring a specimen. High precision focussed charged particle beams are used in charged particle beam devices like electron microscopes, pattern generators for lithographic processes in the semiconductor industry or focused ion beam devices (FIB).

Charged particle lenses usually use electrostatic or magnetic fields for focussing the charged particle beam. Charged particle lenses with electrostatic fields are usually composed